

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/GB2004/003406

International filing date (day/month/year)
06.08.2004

Priority date (day/month/year)
22.08.2003

International Patent Classification (IPC) or both national classification and IPC
B01J13/04, A23L1/00

Applicant
DANISCO AS

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1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

10/568661

International application No.
PCT/GB2004/003406

AP20 Rec'd PCT/PTO 17 FEB 2006

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
- ☒ claims Nos. 7,8,16,25-27

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 7,8,16,25-27 are so unclear that no meaningful opinion could be formed (*specify*):

see separate sheet

- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☒ no international search report has been established for the whole application or for said claims Nos. 7,8,16,25-27
- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
 - the written form ☐ has not been furnished
 - ☐ does not comply with the standard
 - the computer readable form ☐ has not been furnished
 - ☐ does not comply with the standard
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
- ☒ See separate sheet for further details

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	4-7,20-22,24-27,30,35
	No: Claims	1-3,8-19,23,28,29,31-34,36-40
Inventive step (IS)	Yes: Claims	
	No: Claims	4-7,20-22,24-27,30,35
Industrial applicability (IA)	Yes: Claims	1-40
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
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AUTHORITY (SEPARATE SHEET)**

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Re Item III.**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The application does not meet the requirements of Article 6 PCT, because claims 5, 7, 8, 10, 16, 23 and 25-27 are not clear.
 - 1.1 The terms *any synthetic or natural hydrophobic polymer, any mixture of oppositely charged hydrocolloids, any combination of hydrocolloids and a solubility-reducing agent, any water-insoluble microparticules, any synthetic or natural water-soluble polymer and any water-insoluble solid microparticules*, used in claims 5, 7, 10, 16, 23 and 26 are vague and unclear and leave the reader in doubt as to the meaning of the technical features to which they refer, thereby rendering the definition of the subject-matter of said claims unclear, Article 6 PCT.
 - 1.2 Claims 8, 25 and 27 relate to a product and its associated method in which the following parameters are employed:
 - ▶ Storage temperature
 - ▶ Glass transition temperature
 - ▶ Sintering temperature and
 - ▶ Gelling temperature

While these parameters are known in the art, the skilled person would have to test every parameter, as indicated in the claims, against each compound and mixtures thereof, in order to compare the results with prior art. Said operation is almost impossible to be carried out in the claimed extent as the compounds indicated in the scope of the affected claims are unnumbered, e.g. *any water-insoluble particles* (claim 27).

Therefore, the search has been carried out to the extent indicated by the examples or concrete compounds as indicated in the description. The same applies *mutatis mutandis* to the rest of the aforementioned parameters.

Re Item V**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: US-A-5 580 573 (KYDONIEUS AGIS ET AL) 3 December 1996

D2: US-A-5 204 029 (MORGAN ROBERT ET AL) 20 April 1993

D3: CH 509 098 A (NCR CO) 30 June 1971

2. This application has been found to have deficiencies that contravene the PCT requirements.
 - 2.1. The following syntagms are considered by the substantive examiner to be merely descriptive features, thus having a non-limiting effect upon the scope of the affected claims: *suitable* and *active*.
 - 2.2. Many claims contain additional features in form of optional elements. This is the case of the features introduced by *preferably* and *such as*. The attention of the applicant is drawn to the fact that these features are considered entirely optional and not taken into account in establishing the novelty and/or the inventive step issues.
 - 2.3. Most of the claims contain various alternatives, e.g. sets of features introduced by *or*, which may lead to non-unity issues. Moreover, this style of claiming brings unclarities on the scope of the claims and on the essential features of the alleged invention. The requirements of Art. 6 PCT and Rule 6.3 and 6.4 PCT shall be observed.
3. Present application does not meet the requirement of Art. 33(1) PCT because the subject-matter of independent claims **1**, **14**, **36**, **37** and **39** is not novel in the sense of Art 33(2) PCT.
 - 3.1. Document **D1** discloses in c. 3 l. 4-36 and c. 4 l. 50 - c. 5. l. 45 a microcapsule comprising a hydrophobic shell comprising at least 3 liquid cores, each core comprising at least one active ingredient from the list in c. 5. The subject-matter of claim **1** is therefore not new.

- 3.2.** Document **D1** discloses in c. 6 l. 18-56 a process for preparing microcapsules comprising the steps of providing an aqueous phase comprising the active agent, melting the hydrophobic phase to a fluid form, combining the two into a W/O emulsion, processing the resulted product by spray-drying into the desired microcapsules. The subject-matter of claim **14** is therefore not new.
- 3.3.** The product claimed in claim **36** is already anticipated (see **§3.1** and **§3.2**) by **D1**, as it directly results from a known process. The subject-matter of claim **36** is therefore not new.
- 3.4.** The use according to claim **37** is employed in **D1** (c. 1 l. 12-14). The subject-matter of claim **37** is therefore not new.
- 3.5.** The use according to claim **39** is employed by **D2** (c. 3 l. 7-24). The subject-matter of claim **1** (the microcapsules) is disclosed in c. 2 l. 39 - c. 3 l. 55 of the same document **D2**. The subject-matter of claim **39** is therefore not new.
- 3.6.** Dependent claims do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, as their features are obvious and/or anticipated by aforementioned documents.
- 4.** The applicant is requested to file new claims which take account of the above comments.

To meet the requirements of Rule 5.1(a)(ii) PCT, the documents **D1-D3** should be identified in the description and its relevant contents should be indicated. The applicant should ensure that it is clear from the description which features of the subject-matter of the new independent claim **1** are known from those documents.

The applicant has not provided reasons why the claim should not be in the two-part form.

The applicant is requested to file amendments by way of replacement pages in the manner stipulated by Rule 66.8(a) PCT. In particular, fair copies of the amendments should be filed preferably in triplicate.

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Moreover, the applicant's attention is drawn to the fact that, as a consequence of Rule 66.8(a) PCT the examiner is not permitted to carry out any amendments under the PCT procedure, however minor these may be.

In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34(2)(b) PCT, the applicant is requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (see also Rule 66.8(a) PCT).

If the applicant regards it as appropriate these indications could be submitted in handwritten form on a copy of the relevant parts of the application as filed.

* * *

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